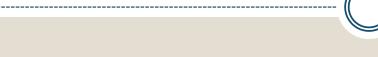


Wind and Wildlife Interactions in Hawaii





HABITAT CONSERVATION PLANS & INCIDENTAL TAKE LICENSES







Statutory Overview

- Hawaii Revised Statutes (HRS) Chapter 195D, protects native species, threatened and endangered (T&E) species
- Prohibits "take" of T&E species
- Authorizes DLNR to issue Incidental Take Licenses (ITL)
- Conditions: Habitat Conservation Plans (HCP) approved by the BLNR



HCPs and ITLs



- Must meet provisions of HRS § 195D, including:
- Avoidance and minimization measures
- Net benefit mitigation plan
- Monitoring program for take and compliance
- Funding assurances



HRS §195D provisions similar to ESA, except:

- Net benefit standard
- HCPs and ITLs for take of plants
- Board of Land and Natural Resources
- Endangered Species Recovery Committee
- No "Section 7" process
- No programmatic HCPs



Process: Voluntary Application



- Triggers and contacts with DLNR/DOFAW
- Initial consultation: potential for take, surveys, etc.
- Application
- Technical assistance from DOFAW staff

Process: HCP Development

- Consultation
- Draft HCP
- Staff review and comment
- Guidance for compliance with HRS § 195D



Process: HCP Compliance with HRS 195D

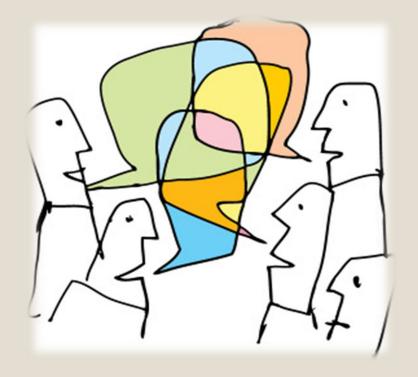


- Increase the likelihood that the species will survive and recover
- Be consistent with the goals and objectives of any approved recovery plan
- Avoidance and minimization measures
- Monitoring program for take and compliance
- Funding assurances

Process: Review

Public review

- Via Office of Environmental Quality Control (OEQC)
- o 60-day public comment
- Public hearing



Process: Review

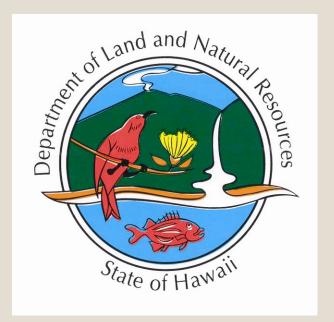


- Advisory committee to Board of Land and Natural Resources (BLNR)
- 6 members: DLNR, FWS, USGS, UH Environmental Center, Governor appointees
- Outies:
 - Provide expert biological recommendations
 - Recommendation to BLNR of approval, disapproval, or amendment



Process: Approval

- Board of Land and Natural Resources (BLNR)
 - Consider recommendation for final approval from ESRC
 - After BLNR approves, DLNR issues the ITL



Wind Turbines and Wildlife

- Direct take from impact with turbines
- T&E species affected:
 - Seabirds
 - Waterbirds
 - Hawaiian owl
 - Hawaiian bat



Wind HCPs in Hawaii: Approved

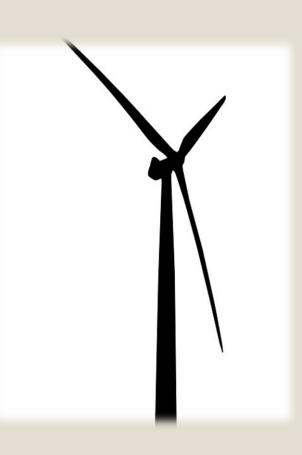


- Maui
- Mitigation
 - **x** Makamakole
 - × On site
- Kahuku Wind Power
 - o Oahu
 - Mitigation
 - × Hamakua Marsh
 - **x** Makamakole
 - **▼** Research and rehabilitation



Wind HCPs in Hawaii: In Development

- Kaheawa Wind Power II
 - o Maui
- Auwahi Wind Energy
 - o Maui
- Kawailoa Wind Power
 - o Oahu



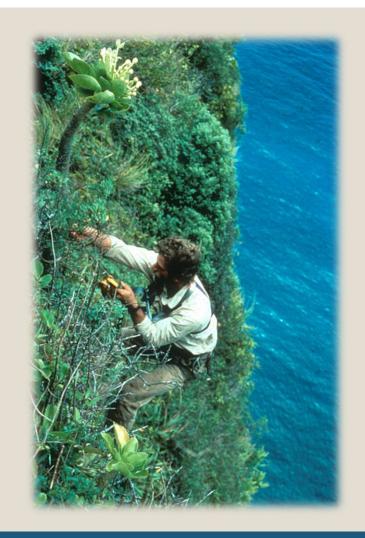
Challenging Species: Hawaiian Bat

- Little biological information
- Population status unknown
- Threats and limiting factors unknown
- Challenging to find downed individuals due to small size
- Difficult to directly monitor net recovery
- Net recovery benefit unknown

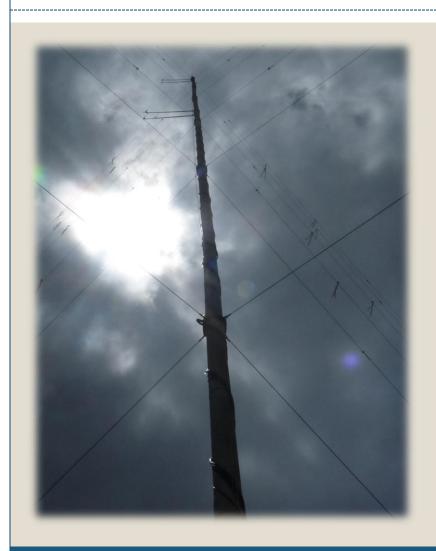


Challenging Species: T&E Seabirds

- Travel to and from nesting habitat at night ~35 mph
- Remote montane nesting habitat
- Nesting habitat sensitive to disturbance
- Very difficult to directly monitor net recovery
- Very expensive to manage:
 - Ungulate and predator control \$50-100K per bird



Challenging Issues



- Towers (seabirds) and SWECs (bats)
 - Impact assessment protocols
 - Protocols for location, height, structure
- Coordination with FWS
- Section 7 projects

Comprehensive Planning Needs

- Landscape surveys
- Wildlife vulnerability mapping
- Mitigation banking
- Island-wide HCPs
- Take monitoring protocols



For More Information

- Contact the DLNR/DOFAW HCP team at:
 - o Call the office
 - **×** 808 587 0166
 - Email the HCP Coordinator
 Sandee Hufana at:
 - ➤ Sandee.K.Hufana@hawaii.gov

